

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER



**Top Secret**

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basic imagery interpretation report

## Duanzeguo (Tuan-tse-kou) Radar Production Plant

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COMMO/ELEC/RADAR R&D FACILITIES

CHINA

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RCA-20/25X1/80

MAY 1980

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INSTALLATION OR ACTIVITY NAME		COUNTRY
Duanzeguo (Tuan-tse kou) Radar Production Plant		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	2°48'41N 107°04'09E	
MAP REFERENCE		
US Army Topographic Command, Series 1505, 1st ed, Sheet NG 48-4, scale 1:250,000		
NEGATION DATE (if required)		
NA		

ABSTRACT

1. Imagery-derived analysis of the Duanzeguo (Tuan-tse-kou) Radar Production Plant indicates that series production of the GIN SLING radar has started at the Duanzeguo plant. One probable GIN SLING target tracking and missile guidance radar has been seen at Duanzeguo since August 1977. One GIN SLING target tracking/guidance radar bases were present. This was the largest concentration of tracking/guidance radar bases seen at Duanzeguo. This report describes activity observed at the Duanzeguo plant. It updates NPIC report and substantially satisfies the basic reporting requirement for the target.
2. A location map, five annotated photographs, and seven tables are included in this report.

INTRODUCTION

3. Duanzeguo Radar Production Facility is approximately 12.0 nautical miles (nm) northeast of the city of Zunyi (Tsun-1), 11.0 nm southwest of the city of Suiyang (Sui-yang), and 1.2 nm northwest of the village of Duanzeguo in the Kunming (Kun-ming) Military Region (Figure 1). The plant is involved in the production of the GIN SLING target tracking and missile guidance radar associated with the Chinese CSA-1 SAM system. This report updates a previous NPIC report.<sup>1</sup>

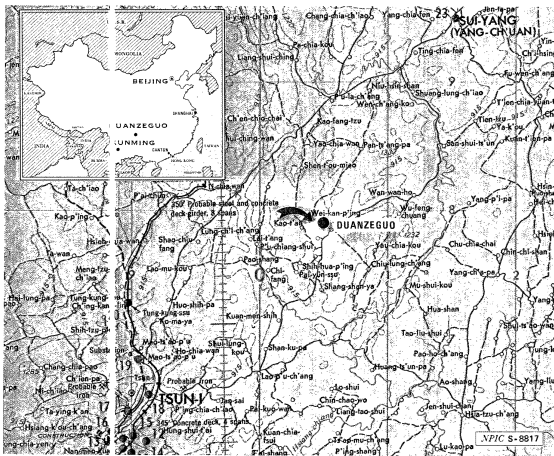


FIGURE 1. LOCATION OF DUANZEGUO RADAR PRODUCTION PLANT, CHINA

BASIC DESCRIPTION

5. [ ] Duanze uo Radar Production Plant is wall secured and road served. The production facility consists of two manufacturing areas linked by tunnels, a radar test/calibration area, a radar test/calibration support area, a housing/support area, a motor pool/support area, and a POL storage area (Figure 2). An electrical power substation, in the northern part of manufacturing area 2, and a regional electric power station (not shown on graphic), approximately 1.5 km northwest of the radar test/calibration area, provide electrical power to the facility.

6. [ ] Duanze uo Radar Production Plant was in a late stage of construction when it was first observed in March 1973. The majority of the plant facilities appeared to be externally complete in March 1974. However, minor construction and tunneling activity were still in progress in March 1974, and minor building construction continued through August 1979. All the tunnel construction has now

been completed and provides a link between manufacturing area 1 and manufacturing area 2. Very little activity has been observed in the vicinity of the tunnel adits.

7. [ ] Manufacturing area 1 (Figures 2 and 3 and Table 1), at the north end of the plant area, contains two large monitor-roofed fabrication buildings, two fabrication/assembly buildings, three assembly buildings, one shop/heat processing building (well ventilated), two shop buildings, one engineering/assembly building, one laboratory building, one forge building, four production support buildings, a liquid waste processing area, and various other small support buildings. One probable fabrication/assembly building was in the midstage of construction, and footings were seen for two additional buildings. The total floorspace in manufacturing area 1 is 22,541 square meters. No radars or pieces of electronics equipment have been seen in this area to date.

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8. [redacted] Manufacturing area 2 (Figures 2 and 4 and Table 2) is 400 meters southeast of manufacturing area 1 and consists of one monitor-roofed fabrication building, two assembly buildings, three monitor-roofed shop/fabrication buildings (two are interconnected), two subassembly buildings, four production support buildings, a liquid waste pro-

cessing area, a shipping/receiving area, and a number of other support buildings. The total floorspace in area 2 is 31,094 square meters. One probable F11E CAN/TEAM WORK radar (without the dish/dome) has been in this area. This is the only radar or electronics equipment that has been seen in manufacturing area 2.

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9. [redacted] The radar test/calibration area (Figures 2 and 5 and Table 3) is 0.6 km southwest of the housing/support area. The test/calibration area consists of one radar control building, three radar calibration buildings, one small shop building, one probable radar component building, three support buildings, and two housing/support buildings. The total floorspace in this area is 2,241 square meters. This is the only area where GIN SLING radars have been observed.



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10. [ ] The radar test/calibration support area (Figures 2 and 6 and Table 4) is adjacent to the southern edge of the housing/support area. It contains one irregularly shaped laboratory/engineering building, one shop building, one administration building, five multistory quarters, and two support buildings. The total floorspace available in this area is 12,304 square meters.

11. [ ] The housing/support and the motor pool/support areas (Figures 2 and 6) are to the west of and adjacent to manufacturing area 2. The housing/support area (Table 5) contains 19 multi-

story quarters, five administration buildings, and various other storage/support buildings. The motor pool/support area (Table 6) contains two administration buildings, 14 support buildings, and 11 various other storage/support buildings. The total floorspace for both support areas is 53,537 square meters. 25X1

12. [ ] The wall-secured POL storage facility (Figure 6) is 200 meters south of manufacturing area 2 and contains two large 17-meter-diameter partially underground POL storage tanks and a pumphouse. 25X1

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**Production Activity**

13. [ ] One probable GIN SLING without the ECCM target tracking and missile guidance radar was observed at the radar test/calibration area for the first time in August 1977. Since that date, a GIN SLING radar has been seen within this same area on several occasions. In addition to a GIN SLING, five tracking/guidance radar bases were observed in August 1979. This increase in the number of radar bases seen at the test/calibration area indicates that the GIN SLING radar may now be in series production at this plant.

electronics van trucks have been observed at the Duanzeguo plant.

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**Imagery Analyst's Comments**

15. [ ] Ten to 12 GIN SLING radars could probably be produced per year at the Duanzeguo Radar Production Plant. The combined GIN SLING radar production efforts of the Duanzeguo plant and the Xian plants are probably more than sufficient to meet both current and future production needs for the GIN SLING tracking/guidance radar.

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14. [ ] The only plants in China that have been involved in SAM tracking and guidance radar production are Xian (Hsi-an) Optical Instrument Plant Hsi-pei [ ] the adjacent Xian Radar Plant 786 [ ] and the Xian Radar Assembly and Test Area [ ]. Only one FAN SONG has been seen at the Xian Radar Assembly and Test Area on any given imagery. However, [ ] five tracking/guidance radar bases were at the Xian Optical Instruments Plant, just east of and adjacent to the Xian Radar Plant 786. The five tracking/guidance radar bases seen at Xian optical plant [ ].

This was the largest concentration of SAM-related equipment seen at the Xian optical plant. The five tracking/guidance radar bases seen at the Duanzeguo radar test/calibration area in August 1979 [ ].

[ ]. In addition to the tracking/guidance bases seen at Duanzeguo, as many as ten tracking/guidance antenna trailers and three cab-over-engine

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**Table 7.**  
**Tracking/Guidance Radars and Associated Equipment**  
**Observed at Duanzeguo Radar Production Plant**

Radar	Radar Antenna Base	Radar Antenna Trailer	Cab-Over-Engine Van Truck	Remarks
1 prob GIN SLING	0	0	0	Without ECCM dish
1 prob GIN SLING	0	0	0	Without ECCM dish
1 GIN SLING	0	0	0	
1 prob GIN SLING	0	0	0	Without ECCM dish
0	0	4	1	Test area not covered; equipment seen in motor pool area
0	0	6	0	Test area not covered; equipment seen in motor pool area
1 GIN SLING	2	3	3	Equipment seen in motor pool area
0	0	3	3	Test area not covered; equipment seen in motor pool area
1 GIN SLING	3	6	3	Equipment seen in motor pool & test/calibration areas
1 GIN SLING	5	10	3	1 prob FIRE CAN without dish; equipment seen in motor pool, test/calibration, & manufacturing area 2

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**REFERENCES**

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**MAPS OR CHARTS**

US Army Topographic Command. Series 1505, 1st ed, Sheet NG 48-4, scale 1:250,000 (SECRET/

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**DOCUMENTS**

1. NPIC [ ] RCA-25/0017/75, *Tsun-i Strategic Industrial Complex*, Jul 75, pp 16 & 17 (TOP SECRET R-

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\*Extracted information is classified TOP SECRET R.

**REQUIREMENT**

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